

INTERNATIONAL SEARCH REPORT

International Application No PCT/JP2004/016499

A. CLASSIFICATION OF SUBJECT MATTER IPC 7 G04B1/14 G04B17/06 F16F1/10 C22C14/00
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According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 G04B F16F C22C

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data, PAJ

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	FR 1 151 350 A (USINE GENEVOISE DE DEGROSSISSEAGE D'OR) 29 January 1958 (1958-01-29) page 3, column 1, line 25 - column 2, line 41	1-7, 16-19
Y		10
A	-----	8, 9, 11-15, 21-23
Y	EP 1 039 352 A (MONTRES ROLEX SA; MANUFACTURE DES MONTRES ROLEX S.A.; ROLEX SA) 27 September 2000 (2000-09-27) the whole document	10
A	----- -/-	1-9, 11-23

Further documents are listed in the continuation of box C.

Patent family members are listed in annex.

° Special categories of cited documents :

- "A" document defining the general state of the art which is not considered to be of particular relevance
- "E" earlier document but published on or after the international filing date
- "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- "O" document referring to an oral disclosure, use, exhibition or other means
- "P" document published prior to the international filing date but later than the priority date claimed

- "T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- "&" document member of the same patent family

Date of the actual completion of the international search

17 June 2005

Date of mailing of the international search report

21.09.2005

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C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	CH 693 516 A5 (EXIDEL S.A) 15 September 2003 (2003-09-15) abstract figure 1 -----	20
A	WO 03/052155 A (ATI PROPERTIES, INC; MARQUARDT, BRIAN, J) 26 June 2003 (2003-06-26) page 5, line 21 - page 7, line 15 table 1 table 2 -----	1-23
A	PATENT ABSTRACTS OF JAPAN vol. 1997, no. 05, 30 May 1997 (1997-05-30) -& JP 09 013136 A (SEIKO INSTR INC), 14 January 1997 (1997-01-14) abstract -----	1-23

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Box II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. Claims Nos.: because they relate to subject matter not required to be searched by this Authority, namely:

2. Claims Nos.: because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:

3. Claims Nos.: because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

see additional sheet

1. As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.

2. As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.

3. As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:

4. No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

1-23

Remark on Protest

The additional search fees were accompanied by the applicant's protest.

No protest accompanied the payment of additional search fees.

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. claims: 1-23

A timepiece comprising:
a time display to display time information; and
a driving power source driving said time display and having
a first and second spring including a titanium alloy
containing one or more vanadium group (Group Va) elements
with an average Young's modulus of 100GPa or less and a
tensile strength of 1000MPa or greater.

2. claims: 24-27

A timepiece comprising:
A time display to display time information; and
a power source driving said time display and having a
balance staff, a balance wheel being fixed to said balance
stem, a roller with jewel and stud ball, a hairspring having
an inner end being fixed to said stud ball, and a stud
support being fixed to an outer end of said hairspring, said
hairspring including a titanium alloy containing one or more
vaadium group (Group Va) elements, with an average Young's
modulus of 100 GPa or less and a tensile strength of 1000
MPa or greater.

3. claims: 28-31

A timepiece comprisin: a time display to display time
information; and
a power source driving said time display and having a quartz
oscillator, a ground plate, and a spring fixing said quartz
oscillator to said ground plate, said spring including of a
titanium alloy containing one ore more vanadium group (Group
Va) elements, with an average Young's modulus of 100 GPa or
less na d tensile strength of 1000 MPa or greater.

Information on patent family members

International Application No

PCT/JP2004/016499

Patent document cited in search report	Publication date	Patent family member(s)			Publication date
FR 1151350	A	29-01-1958	NONE		
EP 1039352	A	27-09-2000	CN 1268682 A DE 69911913 D1 DE 69911913 T2 HK 1027636 A1 JP 2000321371 A SG 84578 A1 TW 430756 B		04-10-2000 13-11-2003 09-09-2004 16-04-2004 24-11-2000 20-11-2001 21-04-2001
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WO 03052155	A	26-06-2003	AU 2002322053 A1 BG 108742 A BR 0214771 A CA 2468263 A1 CN 1602369 A EP 1466028 A1 TW 593706 B US 2003168138 A1		30-06-2003 31-03-2005 14-12-2004 26-06-2003 30-03-2005 13-10-2004 21-06-2004 11-09-2003
JP 09013136	A	14-01-1997	JP 3041585 B2		15-05-2000